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#11/2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 026083/0195

In re Application of

Hans Heinrich Heidtmann, et al.

Serial No.: **09/256,237**

Filing Date: **February 24, 1999**

For: NUCLEIC ACID CONSTRUCT FOR EXPRESSING ACTIVE SUBSTANCES WHICH CAN BE ACTIVATED BY PROTEASES AND PREPARATION AND USE

WITHDRAWAL AS ATTORNEY OF RECORD

Commissioner for Patents
Washington, DC 20231

Sir:

Effective immediately, the following Foley & Lardner attorneys withdraw as Attorney of Record for the captioned application:

APPROVED
SPE, TC1600
2/14/01

STEPHEN A. BENT	Reg. No.	29,768
DAVID A. BLUMENTHAL	Reg. No.	26,257
BETH A. BURROUS	Reg. No.	35,087
ALAN I. CANTOR	Reg. No.	28,163
WILLIAM T. ELLIS	Reg. No.	26,874
JOHN J. FELDHAUS	Reg. No.	28,822
PATRICIA D. GRANADOS	Reg. No.	33,683
JOHN P. ISACSON	Reg. No.	33,715
MICHAEL D. KAMINSKI	Reg. No.	32,904
LYLE K. KIMMS	Reg. No.	34,079
KENNETH E. KROSIN	Reg. No.	25,735
JOHNNY A. KUMAR	Reg. No.	34,649
GLENN LAW	Reg. No.	34,371
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GEORGE E. QUILLIN	Reg. No.	32,792
BERNHARD D. SAXE	Reg. No.	28,665
CHARLES F. SCHILL	Reg. No.	27,590
RICHARD L. SCHWAAB	Reg. No.	25,479
HAROLD C. WEGNER	Reg. No.	25,258

The undersigned is signing this withdrawal form on behalf of himself and all the aforementioned attorneys.

All further correspondence should be sent to:

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Respectfully submitted,

Date: Feb. 5, 2001

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FOLEY & LARDNER
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1: NP_000495 **coagulation factor X precursor; Prothrombinase [Homo sapiens]** BLink, PubMed, Related Sequences, Nucleotide, Taxonomy, OMIM, L

EXHIBIT A

```
LOCUS       NP_000495     488 aa                    PRI       31-OCT-2000
DEFINITION  coagulation factor X precursor; Prothrombinase [Homo sapiens].
ACCESSION   NP_000495
PID         g4503625
VERSION     NP_000495.1  GI:4503625
DBSOURCE    REFSEQ: accession NM_000504.2
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
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            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (residues 1 to 488)
  AUTHORS   Gilgenkrantz,S., Briquel,M.E., Andre,E., Alexandre,P., Jalbert,P.,
            Le Marec,B., Pouzol,P. and Pommereuil,M.
  TITLE     Structural genes of coagulation factors VII and X located on 13q34
  JOURNAL   Ann. Genet. 29 (1), 32-35 (1986)
  MEDLINE   86240676
   PUBMED   3487272
REFERENCE   2  (residues 1 to 488)
  AUTHORS   Leytus,S.P., Foster,D.C., Kurachi,K. and Davie,E.W.
  TITLE     Gene for human factor X: a blood coagulation factor whose gene
            organization is essentially identical with that of factor IX and
            protein C
  JOURNAL   Biochemistry 25 (18), 5098-5102 (1986)
  MEDLINE   87026600
   PUBMED   3768336
REFERENCE   3  (residues 1 to 488)
  AUTHORS   Kaul,R.K., Hildebrand,B., Roberts,S. and Jagadeeswaran,P.
  TITLE     Isolation and characterization of human blood-coagulation factor X
            cDNA
  JOURNAL   Gene 41 (2-3), 311-314 (1986)
  MEDLINE   86221713
   PUBMED   3011603
REFERENCE   4  (residues 1 to 488)
  AUTHORS   Messier,T.L., Pittman,D.D., Long,G.L., Kaufman,R.J. and Church,W.R.
  TITLE     Cloning and expression in COS-1 cells of a full-length cDNA
            encoding human coagulation factor X
  JOURNAL   Gene 99 (2), 291-294 (1991)
  MEDLINE   91216473
   PUBMED   1902434
REFERENCE   5  (residues 1 to 488)
  AUTHORS   Marchetti,G., Castaman,G., Pinotti,M., Lunghi,B., Di Iasio,M.G.,
            Ruggieri,M., Rodeghiero,F. and Bernardi,F.
  TITLE     Molecular bases of CRM+ factor X deficiency: a frequent mutation
            (Ser334Pro) in the catalytic domain and a substitution (Glu102Lys)
            in the second EGF-like domain
  JOURNAL   Br. J. Haematol. 90 (4), 910-915 (1995)
  MEDLINE   95399290
   PUBMED   7669671
REFERENCE   6  (residues 1 to 488)
  AUTHORS   Cooper,D.N., Millar,D.S., Wacey,A., Pemberton,S. and Tuddenham,E.G.
  TITLE     Inherited factor X deficiency: molecular genetics and
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pathophysiology
JOURNAL Thromb. Haemost. 78 (1), 161-172 (1997)
MEDLINE 97341947
PUBMED 9198147
REFERENCE 7 (residues 1 to 488)
AUTHORS Kamata,K., Kawamoto,H., Honma,T., Iwama,T. and Kim,S.H.
TITLE Structural basis for chemical inhibition of human blood coagulation factor Xa
JOURNAL Proc. Natl. Acad. Sci. U.S.A. 95 (12), 6630-6635 (1998)
MEDLINE 98283982
PUBMED 9618463
REFERENCE 8 (residues 1 to 488)
AUTHORS Millar,D.S., Elliston,L., Deex,P., Krawczak,M., Wacey,A.I., Reynaud,J., Nieuwenhuis,H.K., Bolton-Maggs,P., Mannucci,P.M., Reverter,J.C., Cachia,P., Pasi,K.J., Layton,D.M. and Cooper,D.N.
TITLE Molecular analysis of the genotype-phenotype relationship in factor X deficiency
JOURNAL Hum. Genet. 106 (2), 249-257 (2000)
MEDLINE 20208357
PUBMED 10746568
COMMENT REVIEWED REFSEQ: This record has been curated by NCBI staff. The reference sequence was derived from L29433.1, L00390.1.
Summary: This gene encodes the vitamin K-dependent coagulation factor X precursor of the blood coagulation cascade. This factor precursor is converted to a mature two-chain form by the excision of the tripeptide RKR. Two chains of the factor are held together by 1 or more disulfide bonds; the light chain contains 2 EGF-like domains, while the heavy chain contains the catalytic domain which is structurally homologous to those of the other hemostatic serine proteases. The mature factor is activated by the cleavage of the activation peptide by factor IXa (in the intrisic pathway), or by factor VIIa (in the extrinsic pathway). The activated factor then converts prothrombin to thrombin in the presence of factor Va, Ca+2, and phospholipid during blood clotting. Mutations of this gene result in factor X deficiency, a hemorrhagic condition of variable severity.

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